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09/851,159	05/09/2001	Walter Goerenz	3633-503	2512

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EXAMINER
ROSSI, JESSICA

ART UNIT	PAPER NUMBER
1733	9

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/851,159	GOERENZ ET AL.	
	Examiner	Art Unit	
	Jessica L. Rossi	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/13/03, election, paper no.8* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *4* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4,6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Species B, claim 5, in Paper No. 8 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 16 states that the silver layer abuts an antireflection dielectric layer but no support is found in the specification for these layers abutting; however, support can be found on p. 7, lines 5-6 of the specification for the silver layer being adjacent to an antireflection dielectric layer.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-3 and 5-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1 and 18, it is unclear as to what is meant by the protective coating "covering...at least an external boundary edge of the transparent surface coating." Do Applicants mean that the protective coating abuts and therefore covers the external boundary edge of the transparent coating or do Applicants mean that the protective coating extends

between coated and uncoated regions of the pane, as set forth in present claim 11? If Applicants mean the former, the examiner points out that the present specification is not enabling. Applicants are asked to clarify. It is suggested that Applicants redraft claims 1 and 18 to present this limitation as set forth in claim 11.

With respect to claim 11, it is unclear as to what is meant by "the transparent surface coating being removed proximate at least one edge of the coated pane in a region between about 0.1-5 mm from a peripheral edge of the pane along a main surface of the pane." The examiner points out that this is a method step that gets no weight in a product claim. Applicants are asked to clarify. It is suggested to redraft the claim to state "the transparent surface coating being spaced from at least one edge of the pane by a distance between about 0.1-5 mm."

Regarding claim 16, it is unclear what is meant by the silver layer abutting an antireflection dielectric layer. Applicants are asked to clarify. Based on lines 5-6 of p. 7 of the specification, it appears Applicants inadvertently used the word "abutting" when they intended to use the word "adjacent." Applicants are asked to clarify. It is suggested to change "abutting" to --adjacent to--.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 5, 7, 9, and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al. (US 5999136) in view of Koontz (US 4994650) and Tweadey et al. (US 5131967; provided in IDS).

With respect to claims 1, 11, and 18, Winter teaches making a laminated glazing unit having at least two glass panes 116/216, 232 forming a composite with an inside and an outside, a first coated pane 116/216 being provided on a surface facing the inside of the composite with a corrosion-protected transparent surface coating 112/212 and at least one adhesive layer 234 for coupling the panes together (Figures 2-4). The process comprises coating the inner surface of pane 116/216 with a transparent surface coating 112/212 such that the coating is spaced a distance from all four edges of the pane (Figures 2-4; column 4, lines 1-7), applying a protective layer 124 near the peripheral edge of the coated pane wherein the protective layer is impermeable to diffusion of water vapor and covers a portion of the uncoated region of the pane and a portion of the coated region of the pane (Figure 3; column 4, lines 14-20 and 29-32; column 5, lines 23-25), and coupling the panes together with an adhesive layer 234 disposed between the panes (Figure 4; column 4, lines 35-36).

It is noted that Winter teaches the protective layer being a bakable ceramic paint (column 3, lines 6-7 and 24-26; column 4, lines 14-15). Since the present specification teaches the protective layer also being a bakable ceramic paint (p. 5, lines 26-30), the skilled artisan would have readily appreciated that the protective layer of Winter is also impermeable to diffusion of water vapor.

Winter is silent as to removing the transparent surface coating to expose the uncoated regions and the uncoated regions being about 0.1-5 mm from the edge of the pane.

It is known in the art to form a laminated glazing having one pane with a transparent coating that is spaced from the peripheral edges of the pane by coating the entire pane and subsequently removing the coating from the desired portions, as taught by Koontz (column 4, lines 18-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the transparent coating of Winter to the entire surface of the pane and subsequently remove the coating from desired portions of the pane because such is known in the art, as taught by Koontz, and this would eliminate the time and money needed for precise coating of a particular portion of the pane.

Selection of a particular width for the uncoated regions of the pane would have been within purview of the skilled artisan at the time the invention was made. However, it is known in the art to apply a transparent coating to the entire surface of a glass pane and subsequently remove portions of the coating in an area extending form the peripheral edge of the pane wherein the width of the removed portions is about 0.025-3.18 mm, as taught by Tweadey (column 4, line 61 – column 5, line 5; column 5, lines 11-12).

Regarding claims 5 and 13, Winter teaches the protective layer being a bakable ceramic paint (column 3, lines 24-26).

Regarding claim 7, Winter teaches the protective layer being in the form of a frame (Figures 2-3).

Regarding claim 9, Winter teaches baking the ceramic paint and both panes being glass (column 3, lines 24-26; column 6, lines 22-26)

Regarding claim 12, selection of a particular angle would have been within purview of the skilled artisan at the time the invention was made.

Regarding claim 14, Winter teaches the ceramic paint being electrically conductive (column 4, lines 30-31).

Regarding claims 15-16, Winter teaches the transparent coating may be multilayered and one of the layers being silver (column 4, lines 7-8; column 5, lines 35-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include antireflection dielectric layers adjacent to the silver layer in the multilayered transparent coating of Winter because such is known in the art, as taught by Tweadey (column 4, lines 21-23 and 30-34), and these layers work in conjunction with the silver layer.

Regarding claim 17, Winter teaches the adhesive layer being thermoplastic PVB (column 4, lines 35-36).

Regarding claim 19, Winter teaches laminating the glass panes together but is silent as to heat and pressure. It would have been obvious to one of ordinary skill in the art at the time the invention was made to bond the glass panes of Winter using heat and pressure because it is known in the art to use heat and pressure to bond glass panes having an adhesive layer between them, as taught by Tweadey (column 6, line 67 – column 7, line 2), where this achieves good interfacial contact and adhesion.

7. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al., Koontz, and Tweadey et al. as applied to claim 1 above, and further in view of Eisenfuhr et al. (DE 2344616) and Siegfried (DE 19632240; provided in IDS).

Regarding claims 2-3, Winter in view of Koontz is silent as to how the coating is removed. Selection of a particular removal method would have been within purview of the skilled artisan absent any unexpected results. However, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to use mechanical methods because such is known in the art, as taught by Eisenfuhr (abstract). Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to remove the coating by simultaneously abrading the coating and grinding the edge of the pane because such is known in the art, as taught by Siegfried (abstract).

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al., Koontz, and Tweadey et al. as applied to claim 5 above, and further in view of Carter et al. (US 5030503).

Regarding claim 6, Winter is silent as to the protective layer covering substantially the entire main surface of the coated pane. It would have been obvious to cover substantially the entire main surface of the coated pane with the protective layer of Winter because it is known in the art to form a laminated glazing by coating a glass pane with a transparent coating 16 and applying an electrically conductive ceramic paint 18 over the entire surface of the coated pane, as taught by Carter (Figure 3; column 3, lines 22 and 51-53; column 4, lines 40-47), where this serves to protect the entire transparent coating.

9. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al., Koontz, and Tweadey et al. as applied to claim 1 above, and further in view of Goerenz et al. (US 5099105; provided in IDS).

Regarding claims 10 and 20, Winter is silent as to bending the glass after coating. It would have been obvious to one of ordinary skill in the art at the time the invention was made to bend the glass pane of Winter after applying the transparent coating because such is known in the

art, as taught by Goerenz (column 4, lines 21-30), where this allows the glass to be shaped for its intended purpose (i.e. windshield).

10. Claims 1, 5, 7-10, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tweadey et al. in view of Goerenz et al. and Korn et al. (US 5334412).

With respect to claims 1 and 18, Tweadey teaches making a laminated glazing unit having at least two glass panes 12, 14 forming a composite with an inside and an outside, a first coated pane 12 being provided on a surface facing the inside of the composite with a corrosion-protected transparent surface coating 16 (column 7, lines 16-17) and at least one adhesive layer for coupling the panes together (Figure 2; column 1, lines 27-33; column 2, lines 26-37 and 46-50). The process comprises removing the transparent surface coating near all edges of the coated pane to expose a region between about 0.025-3.18 mm from a peripheral edge of the pane along a main surface of the pane (column 4, line 61 – column 5, line 5) and coupling the panes together with an adhesive layer disposed between the panes (column 2, lines 45-50).

The reference is silent as to applying a protective layer near the peripheral edge of the coated pane after removal of the coating wherein the protective layer is substantially impermeable to diffusion of water vapor and covering at least a portion of the exposed region of the coated pane and an external boundary edge of the coating.

It is known in the art to form a laminated glazing by placing a transparent coating 4 on the inner surface of a glass pane 1, subsequently placing protective bakable ceramic enamel 5 around the periphery of the coated pane to form a decorative frame, and bonding pane 1 to pane 2 with adhesive layer 3, as taught by Goerenz (Figure 1; column 1, lines 18-35 and 62-64; column 2, lines 67-68; column 3, lines 45-56; column 4, lines 21-45). The decorative frame

serves to prevent an external view of the adhesive layer and protect it from UV rays (column 1, lines 30-35).

It is also known in the art to place a transparent coating and a decorative ceramic enamel frame in an abutting relationship on the glass pane, as taught by Korn (column 4, lines 60-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the decorative frame of Goerenz to the coated pane of Tweadey after removal of the coating such that the decorative frame and coating abut so as that the frame covers the uncoated region of the pane and the external boundary edge of the coating because such is known in the art, as taught by Korn, where the decorative frame would serve to enhance the appearance of the finished product by preventing an external view of the adhesive layer.

It is noted that Goerenz teaches the protective layer being a bakable ceramic enamel (column 3, lines 53-56). Since the present specification teaches the protective layer also being a bakable ceramic enamel (p. 7, lines 25-26), the skilled artisan would have readily appreciated that the protective layer of Goerenz is also impermeable to diffusion of water vapor.

Regarding claim 5, Goerenz teaches the protective frame being a bakable ceramic enamel (column 3, lines 53-56) where the skilled artisan would have appreciated that such is a ceramic paint; especially in light of the present specification that teaches the protective layer being a bakable ceramic paint, such as a ceramic enamel (p. 7, lines 25-26).

Regarding claim 7, Goerenz teaches the protective layer being a frame (column 3, lines 55-56).

Regarding claim 8, Goerenz teaches the frame being opaque and decorative (column 1, lines 12-15).

Regarding claim 9, Goerenz teaches baking the ceramic paint (column 3, lines 53-58) and Tweadey teaches the coated pane being glass (column 3, lines 55-56).

Regarding claims 10 and 20, Tweadey is silent as to bending the glass pane after coating. It would have been obvious to one of ordinary skill in the art at the time the invention was made to bend the glass pane of Tweadey after applying the transparent coating because such is known in the art, as taught by Goerenz (column 4, lines 21-30), where this allows the glass to be shaped for its intended purpose (i.e. windshield).

Regarding claim 19, Tweadey teaches bonding the glass panes using heat and pressure (column 6, lines 67-68).

11. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tweadey et al., Goerenz et al., and Korn et al. as applied to claim 1 above, and further in view of Eisenfuhr et al. and Siegfried.

Regarding claims 2-3, Tweadey teaches removing the coating using a laser (column 4, lines 61-68) but is silent as to removal by abrading and grinding. Selection of a particular removal method would have been within purview of the skilled artisan absent any unexpected results. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use mechanical methods because such is known in the art, as taught by Eisenfuhr (abstract), and one reading the Tweadey reference as a whole would have appreciated that the removal technique is not critical to the invention whereby mechanical means would serve as an alternative technique absent any unexpected results. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to remove the

coating by simultaneously abrading the coating and grinding the edge of the pane because such is known in the art, as taught by Siegfried (abstract).

12. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tweadey et al. in view of Floyd (US 5320893).

With respect to claim 18, Applicants are directed to paragraph 10 above for a complete discussion of Tweadey. The examiner reiterates that Tweadey teaches applying a transparent surface coating 16 to the first glass pane 12, subsequently removing the coating near all peripheral edges of the pane, applying an adhesive PVB layer over the coated and uncoated regions of the pane to present an uninterrupted barrier to edge corrosion, and bonding the panes together using heat and pressure (column 4, line 61 – column 5, line 5). The examiner points out that the present claim language does not exclude the adhesive layer serving as the protective layer.

The reference is silent as to the adhesive PVB layer being substantially impermeable to diffusion of water vapor. However, the skilled artisan would have appreciated that PVB is impermeable to the diffusion of water vapor, as evidenced by Floyd (column 1, lines 45-47; column 3, lines 48-49).

Regarding claim 19, Tweadey teaches bonding the glass panes using heat and pressure (column 6, lines 67-68).

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tweadey et al. and Floyd as applied to claim 18 above, and further in view of Goerenz et al.

Regarding claim 20, Tweadey is silent as to bending the glass pane after coating. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

bend the glass pane of Tweadey after applying the transparent coating because such is known in the art, as taught by Goerenz (column 4, lines 21-30), where this allows the glass to be shaped for its intended purpose (i.e. windshield).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **703-305-5419**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jessica L. Rossi
Patent Examiner
Art Unit 1733

jlr
March 24, 2003

Michael W. Ball
Supervisory Patent Examiner
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